Non-Technical Summary

Application Type: Bespoke Permit Substantial Variation

Applicant: Berkswell Recycling Limited

1.1 This Non-Technical Summary accompanies the above application to increase the annual tonnage for the site at Berkswell Quarry, Cornets End Lane, Meriden, CV7 7LH.

1.2 The site is located within a worked-out part of Berkswell Quarry. The quarry, which extracts sand and gravel, is located 2 km southwest of Meriden, on the south side of Cornets End Lane and extends to land on the western side of the A452 Kenilworth Road. The nearest human receptor is a farmhouse situated within 250 metres of the site boundary. Berkswell Marsh Site of Special Scientific Interest (SSSI) is situated approximately 500 metres from the site, and River Blythe SSSI is situated 1,350 meters from the site. There are a number of Local Wildlife Sites and Ancient Woodland sites located within 2 km of the facility, including Mercote Mill Pool Local Wildlife Site located within 100 metres of the site boundary.

1.3 The site is occupied and operated solely by Berkswell Recycling Limited under Permit EPR/DB3508MA. The site is adjacent to the Wood Facility also operated by Berkswell Recycling limited.

1.4 The permit application is to increase the annual tonnage to 90,000 tonnes.

(The site currently accepts up to 45,000 tonnes of Green waste per year).

1.5 The site will be operated in the same manner, under the existing management controls and future improvements.

Managing The Additional Incoming Waste

The site operates a first in first out procedure to treat incoming green wastes. Shredded within 72 hours and put into windrow formations.

The site will ensure that incoming wastes are not accepted while there is no capacity for it to be composted shortly after it has been processed ready for the windrows.

Berkswell Recycling Ltd have contingency plans in place as follows:

Service Component	Contingency Tier 1	Contingency Tier 2

Recycling Facility. Possible Issues: To much incoming green waste to be processed within the allotted time scales. loss of material outlets (for both short and prolonged periods. extreme weatherrelated events, serious incidents, fire, epidemics & industrial action. emergency closure and opening of sites. outlet closure. Plant and Equipment.	All incoming green waste can be diverted to our groups other two composting facilities namely, • Freeland Horticulture Ltd Wroot Doncaster • Freeland Horticulture Ltd Cardiff Both sites are fully permitted and licensed to accept and process Green Waste. These sites will be utilised if any of the following events occur at our Berkswell facility • Extreme weather-related events • Serious incidents • Fire • Epidemics & Industrial Action • Loss of material outlets (for both short and prolonged periods) • Outlet closure • Site closure to receiving green waste	Continue to process material until we achieve compliance before accepting anymore green waste to site.
	Freeland Horticulture other composting facilities operate common plant and equipment across their green waste operations, meaning we have duplication of key equipment	Within our wider group we have access to a further 14 screeners and 14 loading shovels across our soil division sites. Our group plant and equipment are supported by maintenance, hire and replacement agreements

	such as shredders, screeners and loading shovels.	with our regional equipment suppliers.
Process staffing issues.	Within the Freeland Group of companies we can transfer employees with processing experience from our soil & composting sites to cover any prolonged staffing issues.	We have good relationships with two local major recruitment companies to supply personnel as and when required if our tier1 solution is unavailable.

Freeland composting sites utilise the most up to date techniques and equipment to undertake the processing of the material and have an annual permitted throughput of over 160,000 tonnes per annum for the sites in total.

If the Berkswell Recycling Facility is unavailable we are able to deploy the above resources directly delivered to our wider site network until such time as it is back online.

We have Disaster Recovery Business Continuity and Risk Management procedures in place. In the unlikely event that we need to employ our contingency arrangements; will be notified at the earliest opportunity. Berkswell Recycling Ltd will work closely with our client teams to minimise any disruption to the services. Any contingency arrangements implemented will be at our own expense and will not incur any additional cost to our clients.

Berkswell Recycling Ltd are permitted to receive 45000 tonnes of green waste per annum.

Berkswell Recycling Ltd need to increase the permitted tonnage to 90,000 tonnes to accommodate the increase in green waste from additional local authorities which are within the range of refuse collection vehicles.

The table below shows the current and planned additions deployed on site that are designed to meet the processing demands of the additional tonnage application.

We will ensure that incoming green wastes are not accepted while there is no capacity for it to be composted within the compost certification scheme rules standard operating procedures.

We will achieve this by following our contingency arrangements above.

Current & Planned Operational Plant, Machinery & Operatives

Plant	Type	Processing Capacity
Doosan DL 550	Loading Shovel	Turning Windrows, Building Windrows, Screening Windrows & Shredding
Hitachi ZW180	High Tip Shovel	Screening Windrows, Shredding, Loading Compost
Hitachi ZW180	High Tip Shovel	Screening Windrows, Shredding, Loading Compost
Hitachi ZW180	Medium Reach Loading Shovel	Screening Windrows, Shredding
JCB 535.95 Telehandler	Telehandler 9.5 Metre	Assisting Site Operations
Doppstadt AK435	High Speed Shredder	40 Tonnes per hour
Powerscreen 3300	11 Mtr Trommel Screener	22 Tonnes per hour
Doppstadt SM518	5 Mtr Trommel Screener	8 Tonnes per hour
Doppstadt SM620	6 Mtr Trommel Screener	10 Tonnes per hour
CDE	11 Mtr Trommel Screener	30 Tonnes per hour
Hurrikan	Windsifter	20 Tonnes per hour
1 Site Manager	COTC / All site operations	50 hours per week
5 Site Operatives	Green Waste Processing	200 hours per week
1 Site Operative	Office / Weighbridge	40 hours per week
Planned Additional Operatives & Equipment 2025	Type	Processing Capacity
Jens	Medium Speed Shredder	60 Tonnes per hour

Volvo L180F	Loading Shovel	Screening Windrows
2 Operatives	Green Waste Processing	80 hours per week

The overall capacity of our current operation with 4 Loading Shovels (140 hours of production per week feeding 1 shredder & 3 Screeners) 3 Screeners (40 tonnes per hour through put) CDE Screener is currently undergoing a total overhaul- expected completion early 2026 (this will produce an additional 30 tonnes per hour throughput. Minimum 7 hours production per day.

Berkswell Recycling will employ 2 additional operatives in Autum of 2025. Operative 1 will be fully employed supporting the current team in processing the expected additional green waste tonnages.

Operative 2 again will support the current team in processing the expected additional green waste tonnages & the treatment of compost oversize. He / she will provide holiday cover for all processing staff. The operative will be trained for proactive maintenance of our plant & machinery. Other duties may include covering the weighbridge and some PAS100 monitoring.

Deal with additional Volume

For added security to deal with approximately 300 tonnes per day of green waste, we are purchasing an additional shredder, Loading shovel & 2 additional operatives.

Tonnes per day

With the additional purchases & staff, this should ensure that we have the ability to cope with 300 tonnes per day.

Plant Breakdown

As per our additional purchases the benefit for us is that if we suffer any Plant & Machinery breakdowns, we have the capacity to revert to our current situation of throughput material that is close to or if not more than 205 tonnes of incoming green waste per day.

1.6 The facility accepts non-hazardous biodegradable waste for treatment in open windrows. The site will not be open to the general public. No hazardous, clinical or Liquid wastes will be accepted at the site.

1.7 The site is operated according to the hours specified below:

Monday to Friday 07:30 - 17.00

Saturday 08:00 - 12:00

Sundays, Bank / Public holidays No operations.

1.8 The Environmental Permit is required for the storage (keeping) prior to treatment and removal (all types of handling/processing) of waste. Waste treatment processes to be carried out on site includes the following:

- Storing of waste pending treatment
- Sorting (with loading shovel / 360o excavator or by hand)
- Shredding
- Screening (by using appropriate mechanical screening plant and equipment)
- Storing compost product and oversize
- Collection and storage of leachate, uncontaminated roof and site surface waters.

1.9 Specified waste management operations include waste recovery operations listed Annex IIA and IIB of The Waste Framework Directive 2000/442/EEC.

They are listed in summary below:

R3: Recycling or reclamation of organic materials which are not used as solvents (including composting and other biological transformation processes).

R10: Use of waste obtained from any of the operations numbered R1 to R10.

R13: Storage of waste pending any of the operations numbered R1 to R12.

D9: Physico-chemical treatment resulting in final compounds or mixtures which are discarded by any of the operations numbered D1 to D12.

D15: Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where it is produced.

1.10 The site will be operated as permitted by a Bespoke permit for a Non-hazardous waste facility for the physical / Biological treatment of green waste for recovery.

1.11 Accepted materials will remain the same, the acceptance, storage and processing of the materials will be the same as detailed in the supporting documents. The application for an Environment Permit is accompanied by a number of detailed site-specific management documents which will ensure the site will be operated with minimal risk to the locality and environment;

- Environmental Risk Assessment
- Odour Management Plan
- Fire Prevention Plan
- Pest Management Plan.

Berkswell Process Flow Diagram

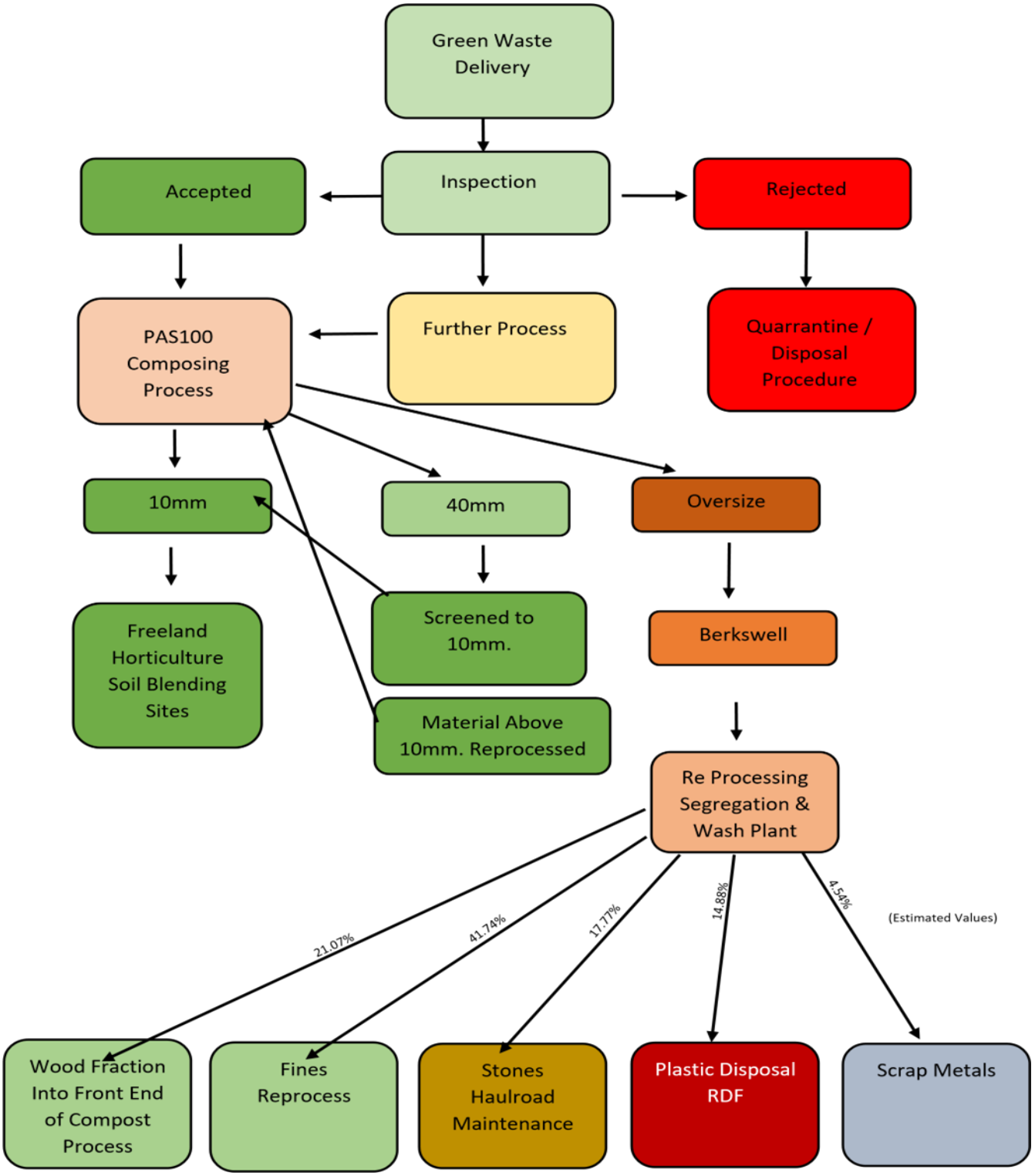


Figure 1: Location of green waste composting facility at Berkswell Quarry

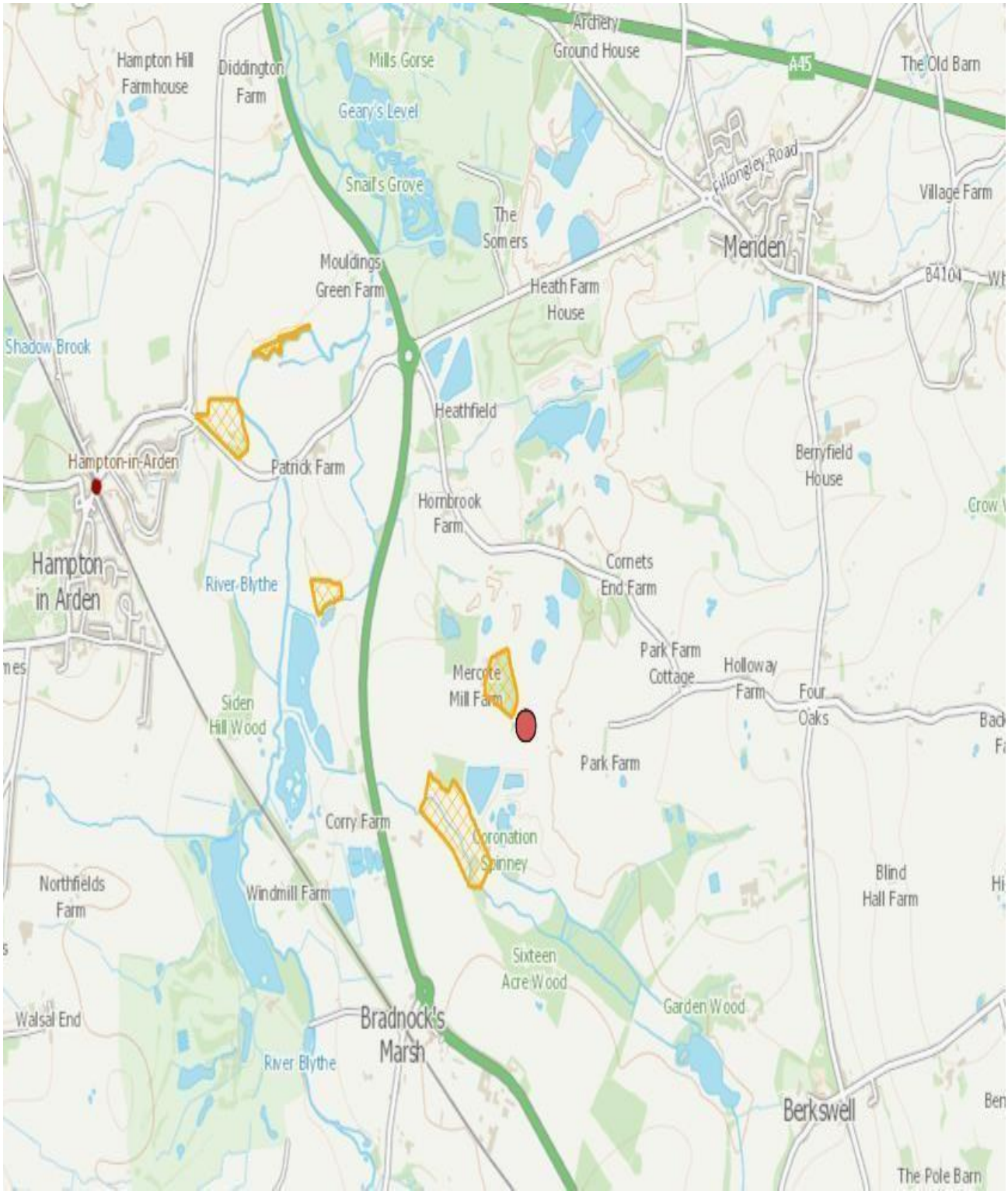
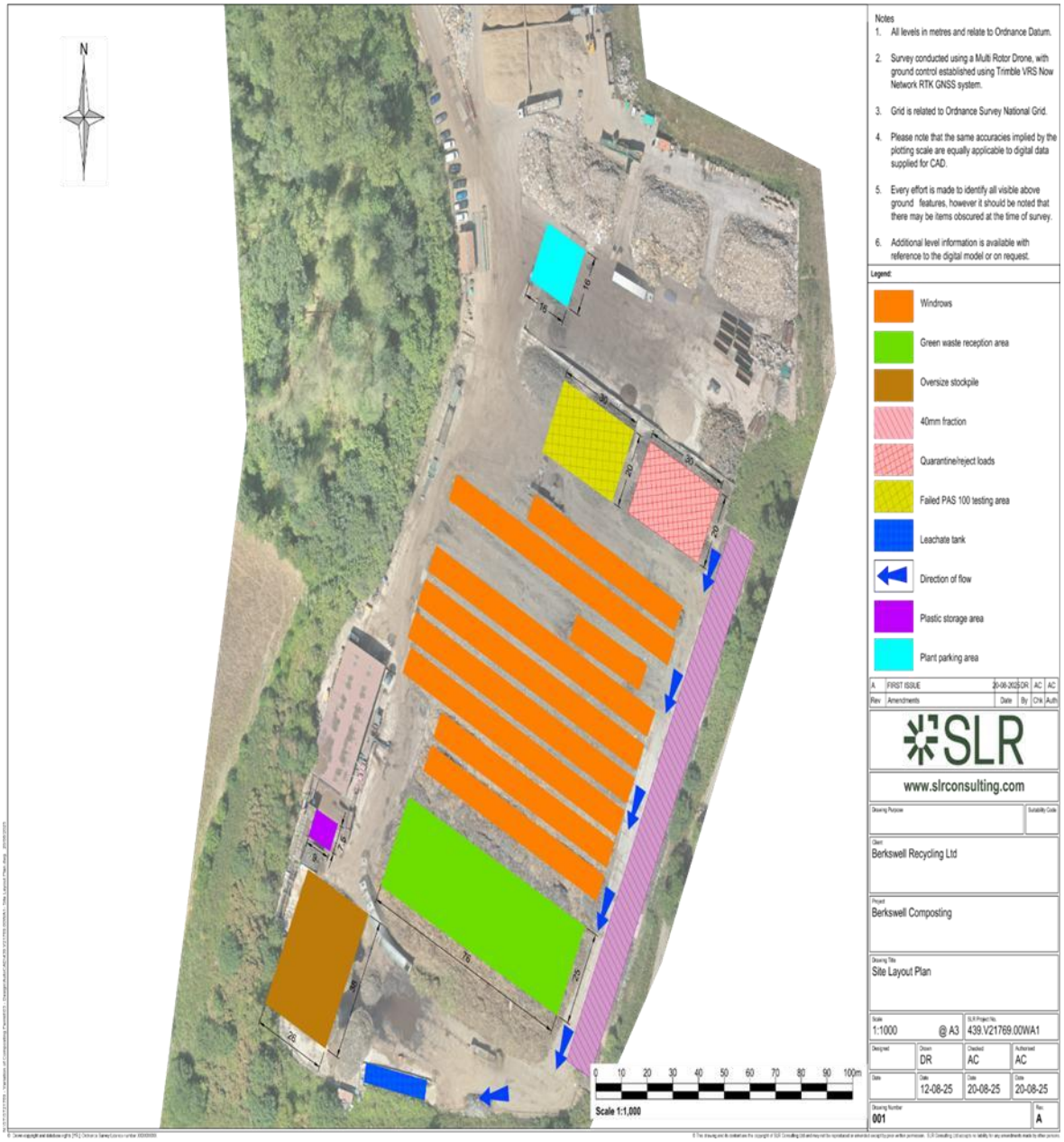


Figure 2: Site Layout



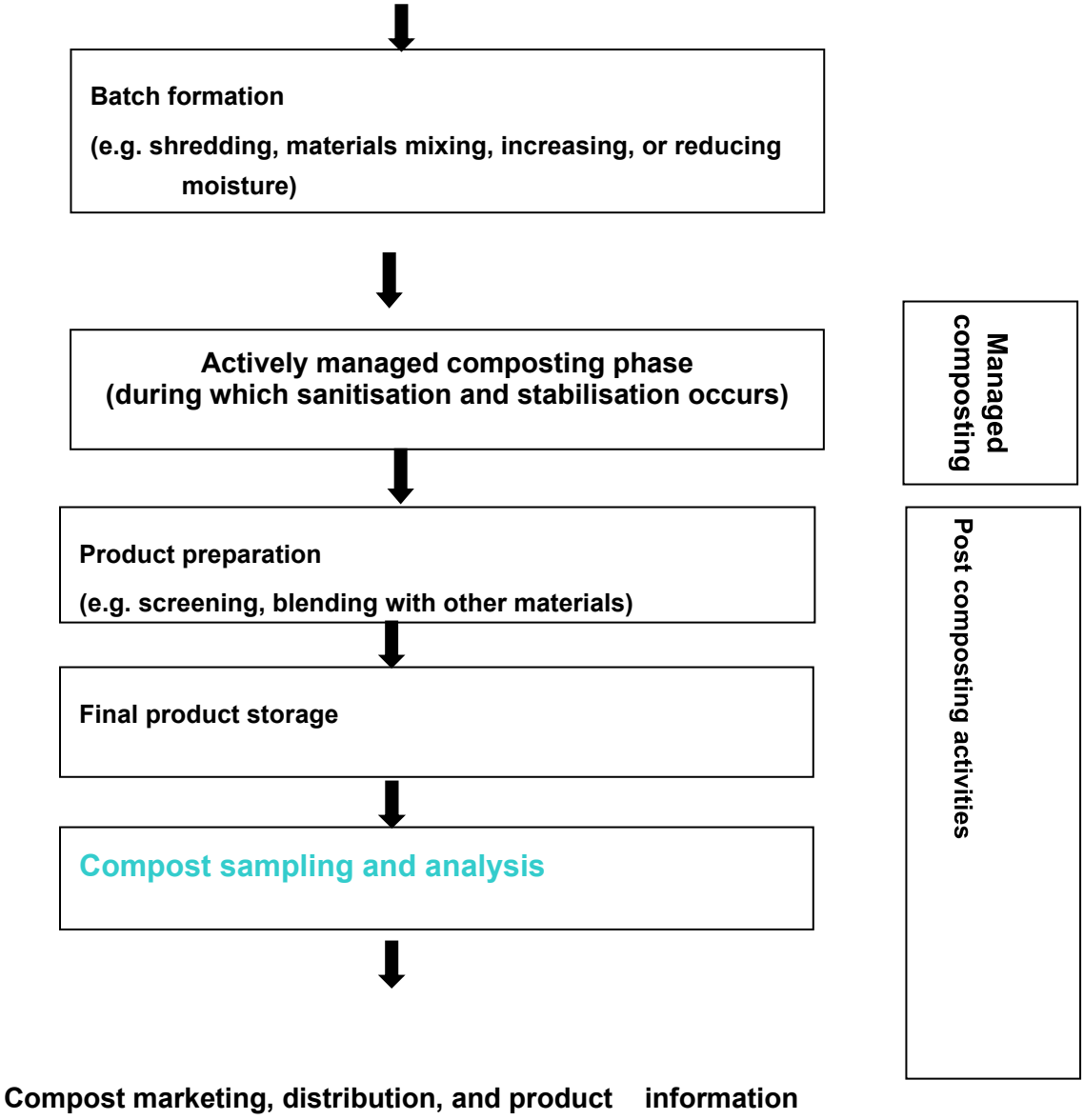
Flow diagram for compost production process and other aspects affecting relevant hazards and their control

Input materials:
Ensure that incoming green wastes are not accepted while there is no capacity for it to be composted within the compost certification scheme rules standard operating procedures.

Pre composting activities

Input materials:
contract / agreement with suppliers regarding sources, types, and quality

Input materials:
storage and preparation
(including contaminant removal)



Standard Operating Procedures (SOPs) for composting systems operated in accordance with REAL Compost Certification Scheme

Contents

Section number	Section title
1.	**Identity and summary of composting process and its products**
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2.2	Contracts / agreements / communications with waste suppliers
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2.4	Traceability of input materials

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7.2	Sampled and tested batches that fail to comply with the Quality Policy
8.	**Product preparation, storage and batch identification**
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9.1	Compost sampling and testing
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10.2.3	Compost use in agriculture and soil-grown horticulture

10.2.4	Vehicle cleanliness

N.B. Unless stated otherwise, all references to PAS100 in this document relate to the 2018 edition of the British Standards Institution's 'Publicly Available Specification for Composted materials.

1. Identity of composting process and its products

1.1 Company, site and process details

a) Company name, address and telephone number

Berkswell Recycling Limited
C/O Freeland Horticulture Ltd
Rosedale Nursery
College Road
Hextable
Kent BR8 7LT
Tel: 01322 619161

b) Composting facility name, address and telephone number

Berkswell Recycling Limited
Cornets End Lane
Meriden
Coventry CV7 7LH
01676 522744

c) Composting process that these SOPs refer to:

Open-air turned windrow composting – PR423.

1.2 General description of the composting process and its outputs

The **sanitisation** phase of this composting process is an open-air, turned windrow process.

The **stabilisation** phase of this composting process is an open-air, turned windrow process.

The **maturation** phase of this composting process is an open-air, turned windrow process.

Note: no processing (e.g. maturation, screening etc.) will be carried out on the storage area.

The compost grades for which conformance with PAS100, the Compost Quality Protocol and any additional quality criteria subscribed in the Quality Policy is intended to be claimed are:

0 to 10mm compost grade, defined as the Principal Grade, and

This composting process is operated under an Environmental Permit EPR/3508MA

2 Input materials

2.1 Types of input materials

The treatment process composts source-segregated biodegradable wastes as set out in Table 1 below (as set out in the Site Management System).

Table 1 Permitted waste types and quantities for composting activity

Open Air Windrow composting (Green waste composting facility)

Maximum Quantity	**45.000 tonnes**
EWC Codes (2000/532/EC)	**Description of waste type**
02 01 07	Wastes from forestry
03 01 01	Waste bark and cork
03 01 05	Sawdust, shavings, cuttings, wood, particle board other than those mentioned in 03 01 04
03 03 01	Waste bark and wood
19 05 03	Off specification compost
20 01 38	Wood other than that mentioned in 20 01 37
20 02 01	Biodegradable wastes
20 03 02	Waste from markets

2.2 Contracts/agreements/communications with waste suppliers

The contract management system at Berkswell Recycling Limited includes regular feedback on the quality of feed stocks delivered to the site shall be provided to all waste suppliers as a key part of the on-going contract management.

The acceptance of waste and the procedures for ensuring that the waste is compliant with the agreed contract conditions is clearly set out in section 4 (Site Operations) of the Site Management System for Berkswell Recycling Limited.

Where loads from a particular source are contaminated but not rejected, Berkswell Recycling Limited will work with the waste producer to reduce the levels of contamination. Where agreed with the waste producer, any excessive contamination will be either hand-picked or removed and disposed of to landfill.

2.3 Rejection or acceptance and storage of input materials

Each load of biodegradable waste delivered for composting shall enter the site via the weighbridge. Details of the waste carrier, waste type, waste code, client/source, quantity (tonnes) of waste, delivery date and delivery location on site (storage area) shall be recorded on a Waste Transfer Note or Weighbridge Ticket and recorded on RF 41 daily load checking sheet and if rejected the details will be entered on to RF 53 Rejected load record.

The weighbridge operator shall then notify the driver to proceed to the waste reception area where a site operative shall ensure the waste load is delivered and tipped in the appropriate area. Procedures for acceptance and rejection of waste loads are set out in section 4 of the Site Management System.

Any input materials stored for incorporation into future batches (e.g. woody material kept for mixing into loads delivered in spring, which tend to contain high proportions of soft, sappy, putrescible plant tissues) shall carry a batch code marker. A batch record sheet shall be created and maintained for such stockpiled material so that it is traceable when mixed with recently delivered input materials that form new composting batches.

Criteria for acceptance / rejection of input loads delivered are specified in Table 2 below, with corrective actions that shall be carried out if the load exceeds the specified criteria.

Table 2 Acceptance criteria for acceptance / rejection of input loads

Hazardous content	Acceptance criteria (critical limit) and load inspection score	Control activity and associated record

Physical contaminants (e.g. plastic bags, noncompostable packaging and plastics, metals, concrete and	**Score 1 = VERY GOOD** load delivered is very clean	Load accepted. Score and action logged on the logged on the 'Input Load Inspection Record Sheet'.
	Score 2 = GOOD = load delivered has negligible physical contaminant content	Load accepted. Score and action logged on the 'Input Load Inspection Record Sheet'.
consolidated mineral fragments (e.g. rocks and stones), etc.	**Score 3 = MEDIUM** = physical contaminant content is quite high, but still below 5 % plastics / packaging items unsuitable for composting evaluated by subjective assessment	Load accepted. Plastic shall be removed as far as practically possible and placed into a 'rejects' container stored on site. The container's contents shall regularly be removed for disposal. Score and action logged into the '*Input Load Inspection Record Sheet'.*
	Score 4 = POOR = physical contaminant content is above 5% plastics / packaging items unsuitable for composting evaluated by subjective assessment	Load rejected. Score and action recorded on 'I*nput Load Inspection Record Sheet'.*
Weeds / plant invasive species	Japanese Knotweed absent from all input loads accepted for composting	Reject and send any loads that contain call customer and inform them the load needs to be sent to a licensed landfill. Actions recorded on 'Input Load Inspection Record Sheet'.
Plants containing toxins (rhododendron, yew, ragwort, hemlock)	Rhododendron, yew, ragwort, hemlock absent from all input loads accepted for composting	Reject and send any loads that contain any of the named toxic plant species call customer and inform them the load needs to be sent to a licensed landfill. Actions recorded on 'Input Load Inspection Record Sheet'.

Only untreated wood will be accepted at site.

The acceptance criteria specified in table 2 shall be specified in the contractual arrangements or clearly communicated to each relevant input material supplier.

Before removal from the composting site, each load or part-load due rejection shall be kept separate from loads awaiting inspection or those accepted for composting.

Each accepted load shall be assessed to identify the processing requirements and any potential problems

The site does not accept Treated wood, digester sewage, bio-digestate packaging and bags and no ABR's

2.4 Traceability of input materials

The information management system provides traceability from waste acceptance at the weighbridge through to final screening and product storage. Composting batches are created one at a time. Batch formation 'start' and 'finish' dates are recorded as part of Berkswell Recycling Limited's batch information system.

Each batch shall be given a unique number /code when being formed, clearly identifiable by a post with a marked board, or similar. This stays with the batch during the composting process. When batch formation is completed, batch monitoring begins and its monitoring start date is recorded on the corresponding 'Batch Formation and Monitoring Record Sheet'.

For each composting batch, the minimum composting process duration stated in these SOPs shall be calculated from the date the batch is created.

3 Preparation of input materials

3.1 Shredding

Any large objects, for example tree trunks and root stocks, not suitable for shredding will be removed from the incoming waste stream to be processed separately.

3.2 Mixing

Where appropriate or deemed necessary by the site manager or other technically competent managers, compost feedstock material may be mixed with other organic amendment (e.g. oversize material, mulch) to improve feedstock quality, physical characteristics and recycle screened products back through the process.

3.3 Wetting prior to batch formation

Moisture evaluation of the input material shall be carried out as per section 4.1.3, prior to any moisture addition.

3.4 Records connecting delivery notes with shredding dates, mixing and wetting

The results of the quality of input materials assessment, wetting and mixing activities, and the unique number of any other batches mixed with a batch when being formed (including oversize) shall be recorded on the Batch Formation and Monitoring Record Sheet.

3.5 Composting process additives

No additives are used in the composting process.

4 Composting activities – managing, monitoring and evaluating sanitisation and stabilisation

4.1 Batch size and monitoring

Compost feedstock materials will be shredded and formed into windrows (approximate dimensions 3m high, 7m wide and 100m long). The windrows will be turned on a regular basis throughout the actively managed composting process. The turning frequency will depend on moisture content, temperature, available processing area, oxygen content, weather conditions and seasonal variation of waste types and incorporation of woody material to build structure into the windrows.

The typical batch size is approximately 2000m^3.

Each formed batch is identified by a marker that displays its batch code, in a way and location in the batch that is easily visible to operatives moving materials on site.

In the event that batches are combined during the composting process, the ‘ongoing’ batch code(s) shall be recorded on each of the corresponding batch record sheets and the record for one of these batches shall be used as the on-going record.

If any sanitised batch is combined with a batch that is only part way through the sanitisation phase, the sanitisation phase for those combined batches shall be restarted.

If any batch becomes separated from its batch code marker, the site manager shall be notified and efforts shall be made to re-identify and re-assign the batch with its correct batch code. If attempts to identify the batch fail, then it shall be re-composted with a newly assigned batch code or dispatched as PAS100 non-compliant material for disposal or use according to waste regulatory controls.

Monitoring records for each windrow shall be checked every working day.

4.1.1 Monitoring system and equipment

The composting monitoring system, including the monitoring equipment, is as follows:

- smarTprobes electronic data reporting system

The monitoring system (including equipment) shall be maintained in a functional state by Wayne Westwood the person responsible for the monitoring system.

Calibration checks on the temperature monitoring system / equipment are carried out once per 12 months by the following independent calibration service provider:

Contact details of the independent organisation that provides the calibration service is
Midland Metrology Limited Old Church Road CV6 7ND 02476 638280. In association with:
Contact: Alex Leeson AML Instruments Limited Eco One, Highcliffe Business Park, The Cliff Ingham, Lincoln LN1 2WE 01522 789375.

Routine checks on the temperature monitoring system / equipment are carried out by the monitoring site staff on a monthly basis.

When the calibration service provider or the composter's designated person finds that any part of the temperature monitoring system has caused inaccurate temperature data, immediate corrective action shall be taken and recorded on the Temperature Monitoring System Calibration Record Sheet. After taking corrective action, the affected part of the system shall be re-checked, evaluated and recorded straight afterwards.

Data obtained during each calibration check on the temperature monitoring system shall be recorded on the Temperature Monitoring System Calibration Record Sheet or such records shall be obtained from the independent calibration service provider together with his/her written method statement of how the calibration checks were carried out. Record details shall also be kept. Any repairs or adjustments undertaken and the outcome, or replacement of an item / component / part of the system shall also be recorded on the Temperature Monitoring System Calibration Record Sheet.

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4.1.2 Temperature monitoring and records

Temperature during the sanitisation and stabilisation phase is monitored by inserting a hand-held temperature probe into the compost windrow at a minimum depth of 1.5 metres every 20 metres. The temperature detected by the sensor when inserted in the windrow shall be allowed to stabilise before a final reading is recorded. All temperature monitoring results for the sanitisation phase will be recorded in the Batch Formation and Monitoring Record Sheet.

4.1.3 Moisture monitoring and records

The moisture content of samples of composting materials from each batch shall be assessed by 'squeeze test' (grasping and clenching the sample in a gloved hand for approximately ten seconds, then opening and assessing moisture content using table 3 below), with scores verified regularly by comparison with quantitative results (% mass/mass) obtained using a drying in an oven and calculating the change of mass having weighed sample mass before and after 'drying and cooling of the sample' (see BS EN 13040 and guidance from the © Renewable Energy Assurance Ltd.

Table 3 Moisture assessment index

Index number	Sample moisture behaviour	Interpretation
1	Water seeps out	Too wet
2	More than one droplet appears	Too wet
3	One droplet appears	OK
4	Compost particles remain packed together and no droplets appear	OK
5	Compost particles fall away from each other	Too dry

4.1.4 Weather monitoring and records

Weather conditions will be monitored and recorded on a daily basis and data entered in the daily site diary and compost monitoring sheet.

4.1.5 Monitoring records and corrective actions

Monitoring records for each batch shall be checked on a weekly basis as part of the routine checks. Any corrective actions shall be carried out if temperatures monitored are not within the critical limits as specified in Table 4a and Table 4b and may include adjusting the turning frequency, increasing the batch size, adding or restricting water. Any corrective action taken to bring temperatures or moisture conditions within the critical limits shall be recorded on the Batch Formation and Monitoring Record Sheet.

Potential corrective actions to raise the windrow temperature may include:

- Additional or more frequent windrow turning/mixing;
- increased windrow size;
- Water addition if composting conditions have become too dry; and/or
- Addition of relatively dry input materials if composting conditions have become too moist.

Any corrective action taken to bring windrow core temperatures or moisture conditions within the target ranges shall be recorded on the 'Batch Formation and Monitoring Record Sheet'.

4.2 Sanitisation and stabilisation

For each windrow, the sanitisation and stabilisation phase shall occur during the minimum 6 week actively managed composting phase and tested in the 7 week. For each batch, the **sanitisation phase** will be consistent with Table B.1 of PAS100:2018 (i.e. 65° for more than two weeks).

Sanitisation shall be marked as complete by inserting the completion date on the Batch Appraisal Record Sheet, only when the minimum time has been completed and batch temperatures, turning requirements and moisture have been kept within the critical limits for the sanitisation phase.

For each batch, the **stabilisation phase** will follow the sanitisation phase. The duration of the stabilisation phase will be a minimum of four weeks.

This result in a minimum period of 6 weeks actively managed composting and tested in the 7 week for PAS100. Though it should be recognised that this processing period may vary throughout the year.

Stabilisation shall be marked as complete by inserting the completion date on the Batch Appraisal Record Sheet when this minimum time has been completed and batch temperatures, turning requirements and moisture have been kept within the critical limits for the stabilisation phase (see tables 4a and 4b below).

4.2.1 Process validation

The process validation phase shall be carried out when first evaluating conformity with PAS100 and any additional compost quality criteria subscribed to in the quality policy. Process validation shall also be carried out when decided necessary as a result of regular or change-triggered management reviews (refer to the quality policy for information).

The minimum of three batches assessed for process validation shall be:

- composted for the minimum times (as per section 4.2. above and in addition to any minimum maturation applicable to the compost grade stated in section 5),
- appraised against the critical limits specified in table 4, and
- Graded and sampled promptly when such composting has been completed.

Each sample of compost grade under assessment shall be representative of the batch from which it is taken and be sent for testing at a REAL Approved Laboratory within 1

week after the batch has completed its minimum composting period (the latter is a requirement in REAL Compost Certification Scheme Rules, rule number 22.

Monitoring locations and frequencies of monitoring composting conditions within each batch shall be carried out as stated in table 5a when the batch is undergoing sanitisation and then as stated in table 5b when the batch is undergoing stabilisation.

The responsible person shall ensure the critical control points and critical limits of the composting process (see tables 4a and 4b and details below on screening and maturation for different grades) have been verified to consistently result in compost of the quality subscribed to in the quality policy. This, together with verification that compost test results meet the quality criteria subscribed to in the quality policy, shall constitute process validation.

4.2.2 After validation

After process validation, the critical control points and critical limits of composting during the actively managed composting phase (sanitisation and stabilisation phases) shall remain as those validated specified in tables 4a and 4b.

The site manager shall ensure that the critical control points and critical limits of the composting process continue to be effective for process management. If for any reason they are suspected or known to have become ineffective, a phase of Hazard Analysis and Critical Control Points evaluation and process validation shall be returned to (refer to the Quality Policy for details on compost quality that must be achieved).

During and after validation each batch shall be sanitised and stabilised by the end of the actively managed composting phase, with composting process conditions and management complying with the critical limits stated in tables 4a and 4b.

Table 4a Validated critical limits of sanitisation phase critical control points

Parameter	**Sanitisation phase critical limits**
Temperature	65□C for more than two weeks
Moisture content	51%
Minimum duration	14 days over within the temperature range.
Minimum number of turns	2 turns (minimum)

Table 4b. Validated critical limits of stabilisation phase critical control points

Parameter	Stabilisation phase critical limits
Temperature	45□C - 80□C
Moisture content	40%
Minimum duration	4 weeks
Minimum number of turns	4 turns

Table 5a Monitoring point locations and monitoring frequency for the sanitisation phase

Parameter & batch zone	Monitoring point locations	Monitoring frequency
Temperature	4 No per windrow	Daily
Moisture content	4 No per windrow	Daily

Monitoring will take place inserting the probe into the core material to obtain the temperatures.

Table 5b Monitoring point locations and monitoring frequency for the stabilisation phase

Parameter & batch zone	Monitoring point locations	Monitoring frequency
Temperature	4 No per windrow at 1 metre depth (see 4.1.2)	Weekly
Moisture content	4 No per windrow	Weekly

5. Maturation

Not Completed

6. Readiness for product preparation

Each batch of compost will be deemed ready once the product maturation phase has been completed.

7. Dealing with non-conforming batches

7.1 Batches that do not conform to composting process criteria

Any batch that does not completely undergo all applicable critical control points and/or fails to comply with any of the critical limits set in these Standard Operating Procedures shall:

- undergo corrective action then be evaluated for conformance to the relevant critical control point and critical limit criteria
- undergo re-composting then be evaluated for conformance to the relevant critical control point and critical limit criteria
- be dispatched from the site for use, processing elsewhere or disposal, with notification of PAS100 non-conformance to the recipient as well as the nature of the non-conformity. In addition the CMI certification body will also be informed

The corrective actions taken and the destiny of each non-conforming batch shall be recorded in the relevant record according to the type of non-conformity and where the non-conformity occurred in the process.

7.2 Sampled and tested batches that fail to comply with the Quality Policy

Any sampled and tested batch that does not conform to the standards set out in Table 1 of the QMS shall:

- undergo corrective action then be sampled and tested in terms of the parameter(s) relevant for evaluating efficacy of the corrective action;
- The batch which does not conform, will be quarantined until the results come back before reading
- undergo re-composting with or without addition of further input material as appropriate, then be sampled and tested in terms of the parameter(s) relevant for evaluating the efficacy of the corrective action; or
- be dispatched for use, processing elsewhere or disposal, and the recipient and regulator notified of the nature of its non-conformity with PAS100.

The actions taken and the destiny of each such batch shall be recorded in the relevant QMS document(s).

8. Product preparation, storage and batch identification

8.1 Screening

Screening of the compost shall be conducted with a Screener and result in the following compost particle size grade(s):

- 0 – 10 mm soil conditioner (certified)

The date(s) on which each batch is screened and its batch code will be recorded on the Batch Screening, Maturation and Sampling Record Sheet.

Oversize material from the screening operation shall be re-composted or processed at Berkswell Recycling Limited. Any addition of oversize material to a batch of input waste will be recorded on the Batch Screening, Maturation and Sampling Record Sheet (for the new batch).

The amount of contrary material (e.g. plastics) is carefully controlled at the waste acceptance stage and this prevents the oversize material from becoming excessively contaminated.

The screened compost will be routinely inspected by a suitably qualified operative and where any contamination of the compost has occurred, appropriate action shall be taken to ensure any contrary material is removed from the compost.

8.2 Blending

The feedstock material will be evaluated to determine its specific processing requirements. Generally, the processing will include shredding, mixing and moisture addition to produce a homogeneous substrate for composting. However, at specific times of the year (e.g. summer, winter), some adjustment or blending of the feedstock material with other materials may be required to reduce the high moisture content or re-adjust any high nitrogen content of the feedstock material. (This is the most important part of the process: achieving the most appropriate feedstock mix).

8.3 Bagging

There is no compost bagging process at Berkswell Recycling Limited.

8.4 Product storage and batch identification

When a batch is screened and tested it will remain on the product storage area separated from the main stockpile until the test results have been received, once it is passed all parameters, the material will be moved to the main stockpile. Each batch of the 0-10mm compost will be stored outside in the product storage area prior to transportation off site (to the end use of the compost product). The compost is stored no longer than 6 months. The storage of compost is consistent with section 27 of

REAL Composting Certification Scheme Rules (Issue 1, Rev 8 2018) that permits the storage of compost certified to the Compost Quality Protocol on unpermitted/unlicensed areas of the site or off-site. If compost that complies with PAS100 is included in any blended product(s) being stored (see 8.3), each batch shall carry a marker that identifies the compost batch (es) within it.

9. Compost sampling and testing, minimum quality, and sampled batch evaluation

9.1 Compost sampling and testing

Sampling of compost will be conducted in a manner consistent with the British Standards Institution BS EN 12579. The compost will be sampled at a frequency as set out in Table 2, Section 13 of the BSI PAS100:2018 with the test parameters set out in Section 14.

Only trained staff will be required to produce batch / compost representative samples. A copy of each completed record sheet shall be filed as per the quality policy and the original completed record shall be sent to the laboratory with the sample.

9.2 Minimum compost quality and sampled batch evaluation

Results for each of the tested compost batch samples shall be evaluated against the quality criteria set out in Table 1 of the QMS. Any sampled and tested compost batch(es) or part-batch(es) that have failed to comply with the quality criteria shall undergo corrective action that may include re-composting or be dispatched for use as non-compliant PAS100. Any action taken will be recorded on the site information system.

In the event that a tested compost sample fails to achieve the quality criteria after validation, the following actions shall be conducted and recorded on the Failed Batch Investigation Record Sheet, without undue delay:

- Investigate how the failure occurred
- Determine whether the QMS requires modification to reflect any change to processing conditions etc.
- Describe the corrective action taken
- Further sampling and testing of extra batch(es)
- Check the efficacy of the change to the QMS or corrective action taken and determine outcome

10. Product labelling, distribution and records

10.1 Product labelling

Compliant batches of compost to PAS100 will satisfy the requirements of PAS100, the Compost Quality Protocol, REAL Compost Certification Scheme Rules and an agreed Standard Operating Procedure. Information supplied to the customer shall include the

obligatory information required by PAS100 and the Compost Quality Protocol, including declaration of conformance with PAS100 and the Compost Quality Protocol.

10.2 Product dispatch

10.2.1 General

Prior to dispatch, each load shall be checked to ensure information supplied to the recipient and kept on record by the compost is correct and that the compost grade is being used for its intended purpose.

10.2.2 Quarantine policy for sampled and tested compost batches

After validation, any compost batch that is sampled and tested may be dispatched with claim of conformance to PAS100 and the Compost Quality Protocol before its test results have been received from the laboratory and evaluated. If any such dispatched batch is subsequently found to have failed to comply with Table 1 of the QMS, the recipient of the compost batch and the regulator shall be notified of the nature of its non-conformity with PAS100. This also applies to any product made from a blend of materials that also contained any of the failed compost batches.

10.2.4 Vehicle cleanliness

The cleanliness of the parts of mobile plant that will be in contact with the compost, or product that contains it, shall be inspected by a site operative. Prior to loading, the transportation vehicle shall also be inspected for cleanliness, especially the surfaces that will be in contact with the product and where appropriate additional cleaning will be carried out.